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New taxa of soil-inhabiting diapriids from India and Sri Lanka (Hymenoptera, Proctotrupoidea)

by

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With 25 figures

ABSTRACT

Claudivania miranda gen. et sp. n., ♀♂ is described and its relation to other diapriid genera is discussed. A *Monelata* species with deeply incised apical margin of fore wings is described as *M. incisipennis* sp. n., ♀. Six species of *Basalys* are described *viz*: *geus* sp. n., ♀♂, *geoides* sp. n., ♀, *besucheti* sp. n., ♀, *loebli* sp. n., ♀, *geobius* sp. n., ♀♂ and *cornutus* sp. n., ♀♂. A key is given to the first five species with shortened wings and the position in the genus *Basalys* s. l. of the aberrant *cornutus* is discussed. *Praeloxotropa* Szabó is considered a syn. n. of *Basalys* Westwood and four comb. n. are proposed.

This paper is based on just a small fraction of the large and very interesting materials collected by sifting soil, debris, rotten wood etc. during several journeys to India [1] and Sri Lanka by Drs. Claude Besuchet and Ivan Löbl [MHN], Geneva. The materials are especially valuable as (because of the method used) so many forms have been collected, which otherwise are difficult to obtain. It is a pleasure for me to name some new taxa after these two distinguished specialists on Coleoptera. I am also grateful for a grant from the Geneva Museum, which enabled me to study at the Museum for one month. My best thanks also to Mr. M. Söderlund, Gothenburg who gave me quite a lot of materials from Sri Lanka, and to Dr. L. Masner [CNC], Ottawa for the loan of some materials.

Monelata incisipennis sp. n. Figs. 1-3

Holotype ♀: India, Madras, Anaimalai Hills, 18 km N. of Valparai, 1250 m, 18.XI. 1972 (Besuchet, Löbl) [MHN], Geneva.

[1] Material from North East India has been collected with a subvention of the "Commission de la bourse fédérale pour voyages d'études d'histoire naturelle".

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So far no species of this genus have been described from the Oriental region or from the whole of SE. Asia although the genus is widely distributed in the area.

♀. Length about 1.2 mm. Colour dark brown with petiole lighter, head black, legs and antennae yellow with clava darker and wings infumate. Head from above (fig. 1)

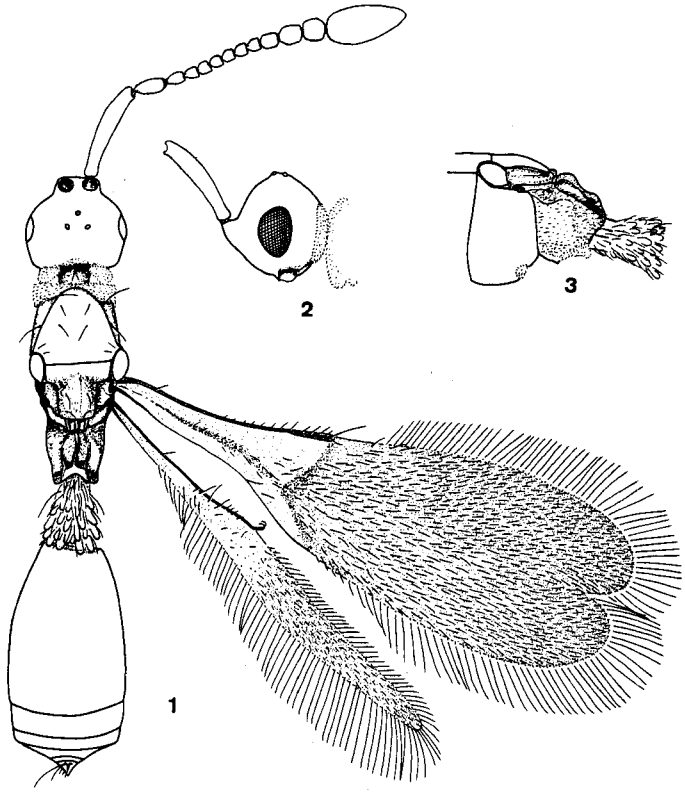

FIG. 1–3.

Monelata incisipennis sp. n., ♀; 1: dorsal view of body;
2: head in lateral view; 3: propodeum and petiole in lateral view.

globose, only slightly wider than long (36:40); eyes slightly shorter than finely convergent temples; occiput hardly concave, antennal sockets rather pronounced and ocelli small. POL:LOL:OOL = 4:3:14. Palps 5- probably 3 (invisible). In lateral view head (fig. 2) somewhat conical, about as long as high; eye (13:20) oval and malar space short, half of shortest width of eye; upper genae with pronounced, thick white pilosity, otherwise head with scattered minute hairs. Antenna (fig. 1) 13-segmented, last segment large, ovoid and scape equal to width of head; A1 (120:24); A2 (45:21); A3 (21:19); A4 to A8 subequal (16:16); A9 (17:17); A10 (20:22); A11 (25:25); A12 (28:29); A13 (100:45). Mesosoma (77:37) rather narrow, slightly narrower than head; mesoscutum with only

two pairs of median setae and a couple of short hairs in front of tegulae; pronotum rather broadly visible laterally from above and with a very thick, white foamy pilosity anteriorly; scutellum gently arched (figs. 1, 3) with no median carina and no basal fovea and shield with 2 pairs of setae; metanotum with a roundly arched median keel; propodeum narrow with a rather wide, concave hind margin, the 3 keels close to each other and median one rather high, evenly arched with rather wide dorsal semihyaline margin, as is the case also with median keel on metanotum. Fore wing longer than meso- + metasoma and with a deep conspicuous apical incision (fig. 1); fore wing (222:72) only with some short bristles on veins, marginalis narrow, subcostalis + marginalis longer than 1/3 of wing length (90:222) and distal half of wing with rather long fringe, 1/3 of wing width. Hind wing narrow (185:16) with fringe longer than width of wing (25:16). Petiole distinctly longer than broad, about twice and covered by semihyaline, elongate scales mixed up with setae. Metasoma (93:48) subparallel and suddenly narrowed to apex; large tergite (70:48) with, as the S1, dense short pilosity on anterior margin.

♂ unknown.

In all respects, this species is a typical *Monelata*, but quite remarkable among the known species because of its deeply incised apical margin of the fore wing. Only *solida* (Thomson) described from S. Sweden has this margin barely notched and for that reason Kieffer once placed it in a separate genus next to *Entomacis* Förster. In the latter genus there are also species with or without incised apical margin and thus these species were formerly treated in different genera. This is obviously not possible as the depth of this incision is variable and can not be combined with other differing characters.

Claudivania gen. n.

Type-species: *Claudivania miranda* sp. n.

Female. Body smooth and shiny without sculpture, depressed. Head elongate, *Psilus*-shaped without ocelli, eyes almost completely reduced and mandibles forming a short opisthognathous beak. Palps much reduced, invisible in the dense genal pilosity. Antenna 10-segmented with a pronounced 3-segmented clava. Mesoscutum and propodeum as two flat shields in same level and scutellum missing. Wings and tegulae almost completely reduced. Legs normal, tarsi 5-segmented and tibial spurs 1 - 2 - 2. Petiole very broad, like two cushions placed transversely. Metasoma slightly elongate with a blunt apex and anterior margin of large tergite broadly concave.

Male. Very different from female. Body normally arched, head not elongate with large eyes and ocelli, mandibles much longer and frontal prominence distinctly nasiform. Palps 4 - 1 and genal pilosity not very dense. Antenna 14-segmented, filiform, rather bristly and A4 slightly emarginate with a tooth. Mesoscutum with deep percurrent notauli. Scutellum rather long with a deep basal fovea and propodeum with three ridges. Fore wing very large with veins of *Basalys* type, not reaching basal third of wing and with a pigmented basalis. Petiole as in female. Metasoma shorter with a straight basal margin.

Among the diapriins, the most frequent situation is that the female antenna is 12- or 13-segmented but there are quite a lot of described genera with the number of segments reduced to 11, i. e. *Solenopsia* Wasmann, *Bruesopria* Wing, *Doliopria* Kieffer, *Szelenyiopria* Fabritius, *Basalopria* Fabritius, *Mitropria* Ogloblin, *Austropria* Masner, *Notoxoides* Ashmead (*Notoxopria* Kieffer, *Philolestes* Kieffer), *Szelenyisca* Masner, *Solenopsiella* Dodd, *Polydiapria* Dodd, *Myrmecopria* Ashmead and *Xanthopria* Brues. *Nanopria* Kieffer should not be placed here as it belongs to the scelionid genus *Telenomus* Haliday (type seen, will appear elsewhere). Then only one genus (except for *Claudivania*) has the

antenna reduced to only 10 segments *viz. Coecopria* Masner where one of the species described by him has even only 9 segments and 4-segmented tarsi. Masner placed also this species in *Coecopria*, which seems to be correct. Lastly, *Ferrieropria* Sundholm has only 9- and *Brinckopria* Sundholm only 3-segmented antennae and the latter also only 4-segmented tarsi. Only one more genus is known with 4-segmented tarsi *viz. Spilomicrinus* Ogloblin, which however is a peculiar spilomicrin with 13-segmented antennae in both sexes.

The male of *Claudivania* is indeed very interesting as this is the first case among the diapriids where the male was successfully associated to a female, which displays such a high range of morphological reduction. Dr. Masner, Ottawa, very kindly sent me a male of a *Coecopria*, which I believe is *C. pygmea* Msn. because of: the serrate edge in front

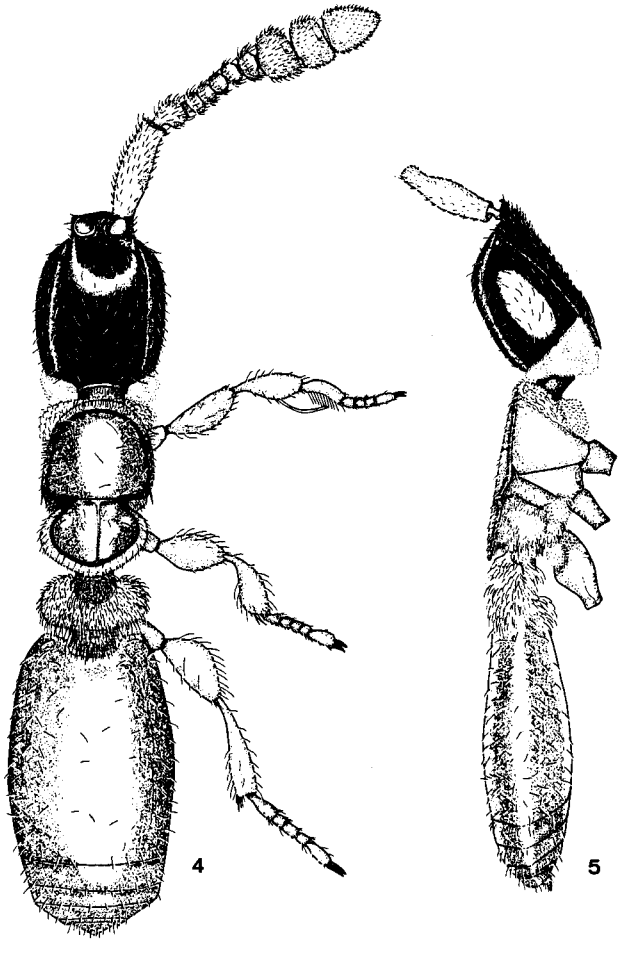

FIG. 4–5.

Claudivania miranda gen. et sp. n., ♀;
4: dorsal view of body; 5: lateral view of body.

of the eyes, the somewhat bent petiole and its sculpture, the deep notch in T1 and the shape of the fold on S1, which all fit the female of *C. pygmea* much better than the other two species in the genus. The male of *C.* ? *pygmea* is in its general appearance very similar to that of *Claudivania* but the main differences are: antenna 12-segmented, frons close to antennal sockets with a serrate hump on each side (much larger than in female), head with punctures, scutellar fovea with a fine median keel, propodeum without lateral keels, metapleura covered by dense large punctures, basalis strongly pigmented and more vein-like, petiole straight with longitudinal rugosity, bent in lateral view, T1 deeply notched medially and fold on S1 about twice as long as broad.

Many (? all) of the genera above with reduced antennal segments are associated with ants, but most of them are probably synoeketic. *Claudivania* seems to be most related to *Austropria* and *Coecopria* but both these genera possess a heavy punctation, especially on head. Another genus which is very similar in its general appearance, e. g. with scutellum completely reduced, is *Symphytopria* Kieffer, which however has the antenna 13-segmented. *Claudivania, Austropria* and *Coecopria* should belong to the *Basalys* komplex of genera and the three genera seem to demonstrate a Gondwanian type of origin, known from respectively: Sri Lanka-S. India, SE. Australia and SE. Brazil.

Claudivania miranda sp. n. Figs. 4-9

Holotype ♀: *Sri Lanka*, Central Prov.: Kandy, 600 m, 15.I.1970, under barks in the forest (Besuchet, Löbl) [MHN], Geneva.

Paratypes: Labelled as holotype, 2 ♀ [HUGG], Lund and [CNC], Ottawa. Uva Prov.: Wellawaya, 300 m, 25.I.1970, 1 ♀ in forest litter (Besuchet, Löbl) [CNC]. Central Prov.: Nuwara Eliya, 1950 m, 15.II.1970, 1 ♂ in forest litter (Besuchet, Löbl) [CNC]. Colombo district: Kandana 17.IV.1979, 1 ♂ on grass at edge of forest (M. Söderlund) [HUGG]. *India*, Madras: Nilgiri 7 km E. of Coonoor, 1350 m, 19.XI.1972, 1 ♀ in forest litter (Besuchet, Löbl) [MHN]. Kerala: Cardamon Hills, 5 km W. of Kumily, 1000 m, 6.XI.1972, 1 ♂ in forest litter (Besuchet, Löbl) [MHN].

♀. Length 1.1-1.2 mm. Colour chestnut brown, head black with antennal sockets and mandibles yellowish; legs, antennae and lateral bulging parts of petiole yellow; a narrow darker margin just inside margin of mesoscutum and propodeum and the latter with a semihyaline posterior edge. Head (fig. 4) elongate (70:52), subrectangular with evenly arched sides; occiput rather straight with a fine carina and antennal sockets slightly convex anteromedially. Ocelli missing and eyes in anterior 1/7 of head reduced to only one facet (fig. 5); palps much reduced, invisible and mandibles forming an opisthognathous beak at most posteroventral part of head; frons slightly hollowed out, slooping towards antennae, laterally vertex with a blunt longitudinal edge separating dorsal and lateral parts of head and malar sulcus distinct; head with numerous scattered hairs and a dense white genal pilosity. Antenna stout (fig. 4) with A1 (40:13); A2 (11:10); A3 to A6 subequal (5.5:9); A7 (6:12); A8 to A9 subequal (14:20); A10 (22:18) and clava equal to width of head. Mesosoma (72:45) depressed and scutellum completely missing, reduced under hind margin of mesoscutum; mesoscutum (40:45) without notauli, like a mirror with few scattered hairs and anterior margin with distinct whitish pilosity; scutal suture virtually absent and lateral and anterior parts of pronotum not visible from above. Propodeum separated from mesoscutum by a delicate suture, propodeum transversely suboval (32:43) with strongly bulging sides and convex hind margin; lateral and posterior margin of propodeum forming a semihyaline lamella and medially with a barely indicated carina. Tegula and wings almost invisible, reduced to

scales. Femora and tibiae dilated and the former without a basal neck. Petiole broadly transverse, bulging laterally, neck-like constricted anteriorly and posteriorly and anterodorsally concave; petiole covered by a very dense pilosity, which obscure the constrictions. Metasoma (112:67) elongately rectangular with a short blunt apex; large tergite (84:67) with broadly concave anterior margin (difficult to see in dry specimens because of petiolar pilosity); large sternite with concave anterior margin covered by a very dense triangular patch of pilosity and thus no median bare hump-like part bordered laterally with furrows, but the furrows are probably present, obscured by the pilosity (not as in *Coecopria* but similar to the situation in *Austropria* which also has furrows although Masner stated that it has not).

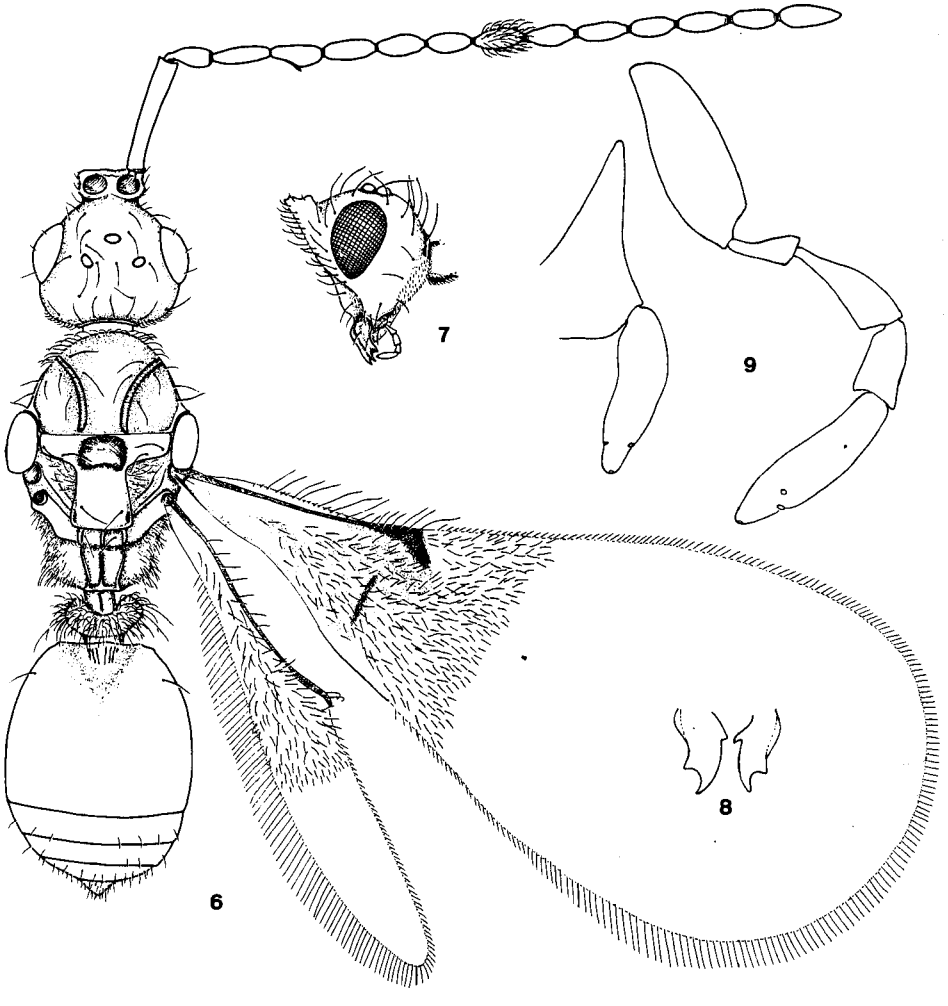

FIG. 6-9.

Claudivania miranda gen. et sp. n., ♂;
6: dorsal view of body; 7: head in lateral view; 8: mandibles; 9: palps.

♂. Length 1.2-1.5 mm. Colour chestnut brown with head blackish; antennae, mandibles, legs and petiole yellow; wings slightly infumate, especially proximally. Head from above (fig. 6) (61:63) pronouncedly nasiform and rim bordering sockets sharp, elevated but not cleft; eyes rather large, protruding and distinctly longer than abruptly arched temples; genae with not too dense pilosity and occipital carina fine; ocelli large and POL: LOL: OOL = 10:6:8. In lateral view head (fig. 7) triangular (62:56) with long mandibles (fig. 8), each with a long apical tooth, a short outer subapical one and a blunt inner one in basal third; palps 4-1 (fig. 9); face straight with short furrows bordering clypeus, antennal socket elevated above frons and its rim sinuate with an anterior and a posterior tubercle; eye (21:31) rather large with rather large facets, narrowed below and malar space half the greatest width of eye; head shiny with long scattered setae and eyes with some few hairs. Antenna (fig. 6) long; A1 (46:8) with sharp apical rim; A2 (15:8); A3 (23:7); A4 (20:9) with emargination in basal half and with a tooth; A5 (21:8); A6 to A13 subequal (20:8); A14 (25:8); flagellar segments slightly constricted at both ends, rather bristly and shortest distance between eyes shorter than scape (40:46). Mesosoma (fig. 6) (103:78) with large tegulae and mesoscutum (41:62) with deep groove-like notauli, bent outwards; pronotum with rather sparse pilosity, mid lobe with two pairs of setae close to notauli and about two setae here also on side lobes; scutellar suture fine, scutellar shield without median carina, rather longer than wide; scutellar fovea deep, distinctly transverse with convex hind margin; metanotum with three rather straight keels; propodeum with three straight keels on a narrow bare area which is hairy laterally and hind margin substraight; pleurae smooth but metapleurae hairy. Fore wing large and broad (332:150) with fringe only about 1/15 of wing width; veins not reaching basal third of wing; costal cell rather wide with long setae along its edge, submarginalis with setae only distally, marginalis with setae and stigmalis rather long, almost as in *Entomacis* Förster; proximal discal pilosity as in fig. 6, a not too well pigmented basalis present and wing slightly pigmented below marginalis — stigmalis Hind wing (212:30) with submarginalis and fringe hardly half the width of wing. Petiole as in female and legs much more slender. Metasoma (102:77) with basal margin of T1 straight and S1 with a basal pilose patch bordered by furrows running to about middle of segment; T1 (70:77) with a shallow V-shaped basal depression where the median elevated part has some delicate longitudinal ridges or wrinkles; the following tergites each with a row of some few short bristles.

Basalys Westwood

Basalys Westwood, 1833: 343. Type-species: *Basalys fumipennis* Westwood.
Loxotropa auct. nec Förster, 1856: 122. Type-species: *Diapria dispar* Nees.
Tropidopsis Ashmead, 1893: 386. Type-species: *Tropidopsis clavata* Ashmead.
Ceratopria Ashmead, 1893: 407. Type-species: *Ceratopria longiceps* Ashmead.
Acidopria Kieffer, 1913: 442. Type-species: *Acidopria variicornis* Kieffer.
Loxoptera Mani, 1941: 39, 40, 41, 47 — error.
Nesopria Muesebeck & Walkley, 1956: 374. N. name for *Tropidopsis* Ashmead.
Praeloxotropa Szabó, 1979: 276. Type-species: *Praeloxotropa carinifrons* Szabó—**syn. n.**

Basalys geus sp. n. Figs. 10-13

Holotype ♀: India, W. Bengal, Darjeeling distr., Tiger Hill, 2500-2600 m, 18.X.1978 (Besuchet, Löbl) [MHN], Geneva.

Paratypes: Same data as holotype, 6 ♀ 3 ♂ [MHN], Geneva and [HUGG], Lund.

♀. Length 1.2-1.8 mm. Body chestnut brown with head and metasoma blackish; legs and antennae light brown with clava blackish; wings infumate. Head (fig. 10) from above clearly elongate (52:45) with temples almost parallel and about twice as long as small protruding eyes; antennal sockets pronounced and occipital carina fine, rather

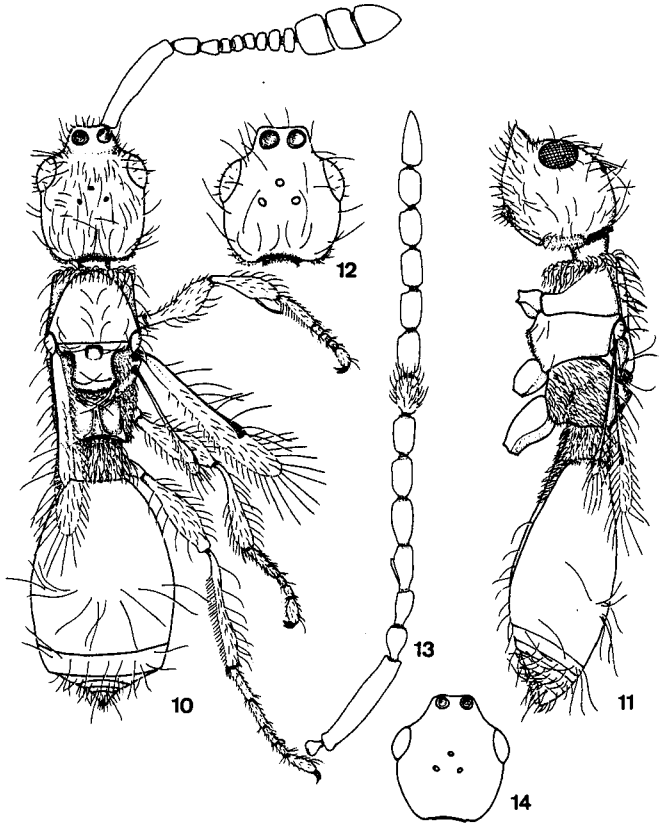

FIG. 10–14.

Basalys geus sp. n., ♀;
10: dorsal view of body; 11: lateral view of body; 12: male head, dorsal view;
13: male antenna; 14: *Basalys geoides* sp. n., ♀, head in dorsal view.

straight; ocelli small and mandibles normal; head, also eyes, with numerous scattered long setae and genae with not too dense greyish-brown pilosity. In lateral view head (fig. 11) (55:45) with eye (11:16) very close to anterior margin, frons more abruptly arched than vertex, genal lamella rather narrow and straight and malar space longer than greatest width of eye (22:16). Antenna 12-segmented (fig. 10) with pronounced 3-segmented clava; A1 (42:9); A2 (10:7); A3 (7:6); A4 to A6 subequal (3.5:6); A7 (4:6.5); A8 (4:8); A9 (4:9); A10 (12:15); A11 (10:16); A12 (18:15). Mesosoma (68:37)

depressed, only somewhat narrower than head behind eyes, pronotum broadly visible laterally from above and mesoscutum (29:37) without notauli; on each side 2 setae in front of tegula and 3 pairs of submedian setae, which are variable, sometimes only 2 pairs placed closer to scutal suture; anterolaterally on pronotum rather dense backwards directed brownish hairiness. Scutellum (20:18) slightly diverging posteriorly with a subsquare rather shallow fovea; metanotum inconspicuous, covered by dense, towards middle curved rather long setae. Propodeum medially glabrous, broader than long and median keel low, rather broad and slightly concave in middle, thus almost bicarinated. Legs quite normal and wings reduced, reaching anterior third of T1; wing veins and margin with long ciliae, fore wing without a pigmented basalis. Petiole slightly broader than long (16:19) with rather long, dense, greybrownish setation. Metasoma (90:58) with shortly pointed apex and tergites behind middle with a transverse row of very long setae; T1 (70:58) anteriorly virtually without hairs.

♂. Length about 1.7 mm. Colour as in female but only head blackish and flagellum darker than base of antenna. Head (fig. 12) shorter (52:51) with temples less parallel and ocelli larger. Antenna (fig. 13) filiform and A4 with a semihyaline sharp ventral lamella reaching distal quarter of segment; A1 (45:9); A2 (14:7); A3 (18:9); A4 (18:9); A5 (17:9); A6 to A13 subequal (15:9); A14 (21:8). Mesosoma and wings as in female. Metasoma slightly narrower but about 1.5 times longer than broad as in female.

This is the first short winged *Basalys* described from SE Asia and it is easily distinguished from European species because of its parallel shape and very long setation, especially on metasoma. Dodd (1915) described one short-winged species *viz. Loxotropa grandiceps (Loxotropa = Basalys)* from Australia, but it is obviously not conspecific, with this or the following species, being yellow with black metasoma and nothing is said about long setae being abundant.

Basalys geoides sp. n. Fig. 14

Holotype ♀: India, W. Bengal, Darjeeling distr., Tiger Hill, 2500-2600 m, 18.X.1978 (Besuchet, Löbl) [MHN], Geneva.

Paratypes: Same data as for holotype, 3 ♀ [MHN], Geneva and [HUGG], Lund.

♀. Length 1.4-2.0 mm. Colour as in *B. geus* but of a more uniform brown, head and metasoma not blackish. This species is essentially identical to *geus*, except for some minor characters. Especially head (fig. 14) (50:48) is slightly different, more roundish with temples clearly converging posteriorly. Mesosoma as in *geus* but setation on mesoscutum sparser, usually only 2 setae on each side close to scutal suture as in *besucheti* sp. n. (see below) and no or 1 seta in front of tegula. Median keel on propodeum narrower and not subbicarinate.

♂ unknown.

This species-komplex is here tentatively divided into two species because of some small differing characters, which seem to be constant i.e. the parallel blackish head in *geus* and the more posteriorly convergent, shorter brownish head in *geoides*. But the mesoscutal setation and the shape of the scutellar fovea are variable. Then there is also a large specimen, placed in *geoides*, which is as large as the largest *geus*-specimens but which has a less parallel head (almost as in fig. 14), mesoscutal setation and propodeal keel as in fig. 10, scutellar fovea very small, shallow and round and the antennae comparatively longer than in any of the specimens of the komplex. The puzzling thing with this specimen is that the differences seem not to be allometric. Thus, this might be a third species or ev. all specimens in the komplex could represent only one variable

species. In the latter case, however, the shape of the head would be more variable than generally accepted for the genus and I believe this is to go too far.

Basalys besucheti sp. n. Figs. 15-16

Holotype ♀: India, Madras, Palni Hills 23 km W. of Kodaikanal, 2150 m, 14.XI.1972 (Besuchet, Löbl) [MHN], Geneva.

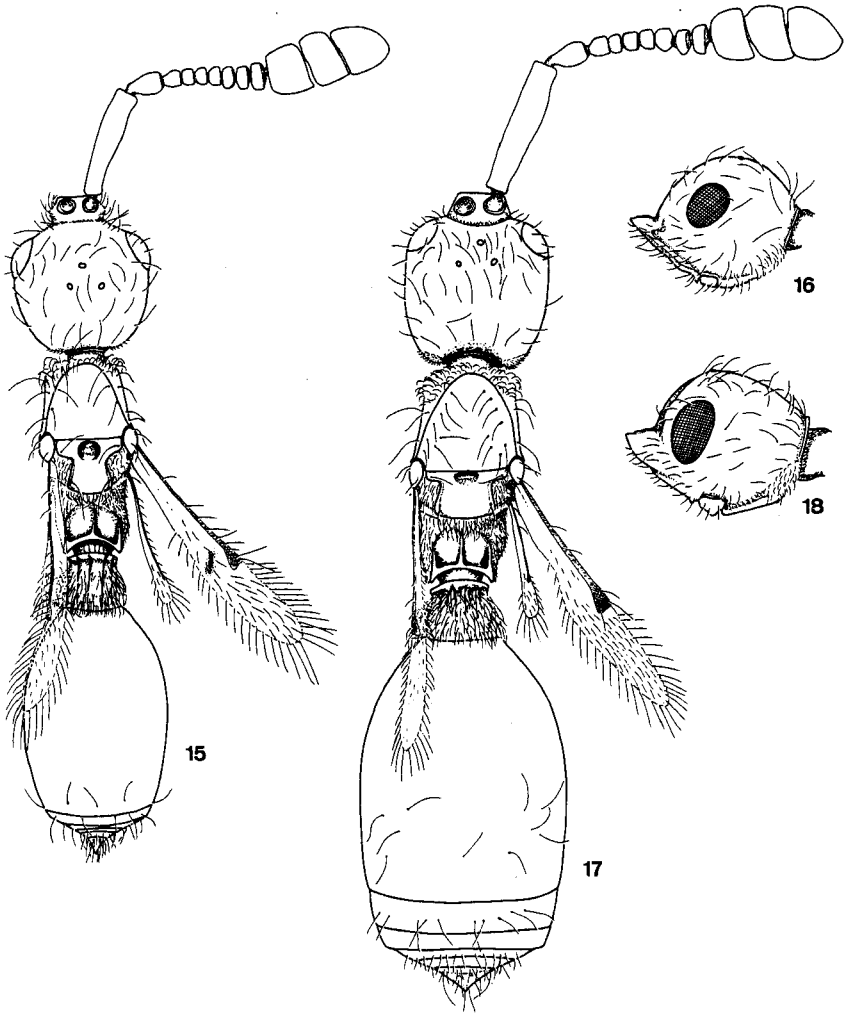

FIG. 15–18.

Basalys besucheti sp. n., ♀;
15: dorsal view of body; 16: head in lateral view.
Basalys loebli sp. n., ♀; 17: dorsal view of body; 18: head in lateral view.

Paratype: India, Kerala, Cardamom Hills 13 km NE. of Munnar, 1900 m, 26.XI. 1972, ♀ (Besuchet, Löbl) [MHN], Geneva.

♀. Length about 1.3 mm. Colour chestnut brown with black head, legs and antennae yellowish brown with clava blackish; wings infumate and petiole yellow. Head globose, from above (fig. 15) (62:56) with small eyes and temples evenly converging towards fine occipital carina; temples about twice as long as an eye and ocelli very small; antennal sockets distinctly bulging laterally and head behind eyes much broader than mesosoma. In lateral view head (fig. 16) (65:53) with evenly arched vertex and frons; eye (14:20) rather far from anterior margin of frons, malar space subequal to greatest width of eye and anterior edge of face sharp, due to a furrow or depression running down to mouth from innermost part of socket. Genal lamella narrow, head with scattered long setae and upper genae with only sparse grey pilosity. Antenna (fig. 15) with A1 (44:10); A2 (13:9); A3 (6:6); A4 to A6 subequal (4:6-7); A7 (5:9); A8 (5:10); A9 (5:11); A10 (15:20); A11 (13:21); A12 (19:20). Mesosoma (71:37) depressed, mesoscutum shiny (30:37) with about 2 pairs of setae close to scutal suture and anteriorly with rather dense long grey hairs curved backwards; scutellum (22:17) with rather large roundish fovea and metanotum with interiorly directed hairs; median keel on propodeum narrow, little arched seen from side. Wings short, reaching to middle of large tergite; fore wing with pigmented basalis and long cilia (fig. 15). Petiole barely longer than wide with sparse hairiness dorsally and only some few posteriorly abbreviated ridges. Metasoma (99:59) with rather arched sides, large tergite (83:59) without short hairs anteriorly and close to hind margin with a transverse row of a few long setae; following tergites also with such a row of setae and apex of metasoma short or abruptly pointed.

♂ unknown.

The species is especially characterized by the shape of the head with its bulging lateral parts of antennal sockets and the furrow-like depression running from innermost corner of socket towards mouth.

Basalys loebli sp. n. Figs. 17-18

Holotype ♀: India, Kumaon (UP), Chaubattia, 1950 m, 14.X.1979 (Löbl) [MHN], Geneva.

Paratypes: India, Garhwal (UP), 6 km E. of Dhauolti, 2300 m, 21.X.1979, ♀ (Löbl) [MHN], Geneva; India, Garhwal (UP), 10 km W. of Chamba, 2200 m, 20.X.1979, ♀ (Löbl) [HUGG], Lund.

♀. Length 1.4-1.6 mm. Colour black or mesosoma very dark brown with legs and antennae dirty yellow to brownish, clava black and wings infumate. Head from above (fig. 17) somewhat elongate (65:58), eyes small, placed very far ahead and head broadest here, much broader than mesosoma; temples almost 3 times as long as eyes and inconspicuously converging backwards and ocelli small; occipital carina fine, slightly concave and frons also distinctly concave; head with scattered rather long setae and sparse, short pilosity on upper genae. In lateral view head (fig. 18) (73:58) with straight genal lamella, eyes rather high (15:27) and malar space rather short, subequal to shortest width of eye; frons more abruptly arched than vertex. Antenna (fig. 17) with A1 (55:12); A2 (15:9); A3 (7:7); A4 to A6 subequal (5.5:7); A7 (6:9); A8 (6:9); A9 (6:11); A10 (15:21); A11 (16:22); A12 (22:21). Mesosoma (80:45) depressed, shiny, mesoscutum (40:45) with rather numerous setae along scutal suture and anteriorly with not too dense grey pilosity; scutellum (20:25) short and broad with shallow transverse fovea; metanotum hardly present, with curved hairs; propodeum smooth medially, broader than long and median

keel narrow and low. Fore wing almost reaching to middle of large tergite, without a pigmented basalis and with moderately long marginal cilia. Petiole about as wide as long, slightly bulging laterally and with not too long grey pilosity. Metasoma (142:84), large tergite without anterior pilosity and tergites behind it forming a longer point than in *besucheti*; posterior half of T1 with a row of long, irregularly placed setae and the following tergites also with row of long setae.

♂ unknown.

This species seems to be very close to *Basalys cavifrons* (Szabó) **comb. n.** (1979) from Mongolia. But SZABÓ states that "Kopf kaum quer" ... "Wangen etwa zweimal länger als die Augen". In *loebli* the head is distinctly longer than broad and temples are about 3 times as long as an eye, which indicate that this is a separate species. Besides, *cavifrons* is only 1 mm long.

Basalys geobius sp. n. Figs. 19-22

Holotype ♀: Sri Lanka, Pidurutalagala, 2200 m, 29.I.1970 (Besuchet, Löbl) [MHN], Geneva.

Paratypes: Same data as holotype, 5 ♀ 5 ♂; Sri Lanka, Horton Plains 15.II.1970, 2 ♀; Hakgala 28.I.1970, ♀ 2 ♂ (Besuchet, Löbl) [MHN], Geneva and [HUGG], Lund; Colombo distr., Kandana 17.IV.1979, ♀; Kandy distr., Ginigathena 22.IV.1979, ♂ (M. Söderlund) [HUGG], Lund.

♀. Length 1.1-1.8 mm. Colour blackish and metasoma usually very dark chestnut brown; clava black, otherwise antennae and legs reddish brown and wings infumate. Head from above (fig. 19) (52:46) slightly longer than wide with temples gently arched, distinctly less than twice as long as length of an eye; eyes somewhat protruding, occiput finely carinate and antennal sockets with straight sides, converging forewards. Ocelli small and palpi obviously 5-2. In lateral view (fig. 20) head (53:47) slightly longer than high, frons evenly arched, sometimes vertex slightly angular as in fig. 20 and eyes not close to fore margin; eye rather small (10:17) and malar space subequal to greatest width of eye; genal lamella rather straight and narrow; head with scattered rather long setae and not too dense pilosity on upper genae. Antenna (fig. 19) of usual shape; A1 (42:8); A2 (10:6); A3 (7:5); A4 to A5 subequal (3.5:4.5); A6 (3:5); A7 (3:6); A8 (3:6.5); A9 (3:7); A10 (12:16); A11 (11:18); A12 (18:16). Mesosoma depressed (68:38), distinctly narrower than head behind eyes (45:38); mesoscutum with 3 to 4 pairs of median bristles, anteriorly with not too dense grey pilosity and lateral parts of pronotum only rather narrowly visible. Scutellum (19:17) moderately broad posteriorly and with a rather deep roundish fovea; metanotum not pronounced with rather dense, curved hairs. Propodeum of ordinary shape with a rather large smooth median area and a narrow median keel which in side view (fig. 20) usually is somewhat higher than scutellum and rather straight; metapleura with dense grey pilosity. Fore wing (fig. 19) reaching to posterior fourth of large tergite; fore wing (110:18) with a narrow, inconspicuous basalis, rather long bristles on veins and on wing margin. Hind wing (60:10). Petiole slightly longer than broad (20:16), convex dorsally, with smooth and shiny anterior half and here only a couple of vague abbreviated ridges; posterodorsal half of petiole with very short, dense pilosity which is much longer lateroventrally. Metasoma (105:61) virtually without hairs anteriorly on T1, only with 1 or 2 bristles laterally; T1 without a row of bristles at posterior margin; next tergite T2 with a row of long bristles; T3 only with a couple of bristles laterally and T4 with rather irregular setation laterally

(most of them); last tergite forming a rather narrow triangle which is slightly concave dorsally.

♂. Length 0.9-1.4 mm. Colour as in female. Head from above (fig. 21) shorter (44:40). Antenna (fig. 22) with A1 (36:7); A2 (10:6.5); A3 (9:6); A4 (12:7) with a sharp

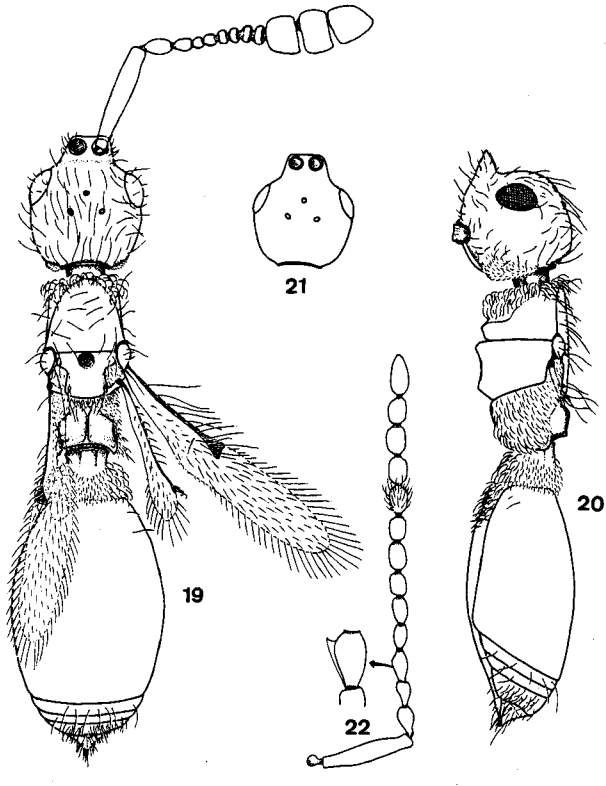

FIG. 19–22.

Basalys geobius sp. n., ♀;
19: dorsal view of body; 20: lateral view of body; 21: male head, dorsally; 22: male antenna.

semihyaline lamella ventrally, reaching to anterior fourth of segment; A5 to A7 subequal (10:6.5); A8 to A13 subequal (10:7); A14 (16:7). Mesosoma virtually as in female but keel on propodeum and whole propodeum less horizontal. Fore wing comparatively larger (120:25). Petiole with more distinct ridges and sparser pilosity, especially dorsally. Metasoma slightly shorter and narrower (75:46) with a more blunt apex and sparser pilosity apically.

Among the species dealt with here, this species is rather similar to *besucheti*, but there are some striking differences (see the key).

KEY TO SHORT-WINGED ORIENTAL SPECIES OF THE GENUS *Basalys* WESTW.

1. Head behind eyes only slightly wider than mesosoma, eyes close to anterior margin in lateral view, bristles on body very long, on T1 numerous and median keel on propodeum broad, almost bicarinate (fig. 10) 2
— Head behind eyes much wider than mesosoma, eyes not placed so far ahead, bristles on body, especially on T1 much shorter, only in *B. loebli* rather numerous here and median propodeal keel narrow (figs. 15, 17). 3
2. Head clearly longer than broad with unusually parallel temples (fig. 10); protruding eyes placed far ahead; mesoscutum with about 3 pairs of median setae and scutellar fovea roundish; wings very short, only reaching anterior third of T1 which has very long bristles in a submedian transverse row. Male flagellar segments about 1.7 times as long as broad . . . . . *geus* sp. n. ♀♂
— Essentially identical to *geus* but head less parallel with more converging temples (fig. 14). . . . . *geoides* sp. n. ♀
3. Frons straight or slightly convex; in lateral view eyes rather small, malar space subequal to greatest width of eye (figs. 16, 20); fore wing with a pigmented basalis; scutellar fovea roundish and shield slightly longer than broad; T1 apically with at most some few setae in a regular row. 4
— Frons clearly concave; eyes in lateral view much higher, malar space slightly more than half the greatest width of eye (fig. 18); fore wing without a basalis; scutellar fovea transverse and shield clearly broader than long; T1 apically with rather numerous setae in an irregular row rather far from hind margin . . . . . *loebli* sp. n. ♀
4. Head globose, temples distinctly converging and sides of antennal sockets bulging (fig. 15); mesoscutum with some few bristles only along scutal suture; wings reaching to middle of T1 and basalis distinct; petiole with sparse pilosity all over and with distinct ridges; T1 with few bristles in a row close to hind margin . . . . . *besucheti* sp. n. ♀
— Head subparallel with sides of antennal sockets not bulging (fig. 19); mesoscutum with 3-4 pairs of median bristles; wings longer, reaching posterior third of T1 and basalis indistinct, narrow; petiole smooth and shiny anteriorly and here with a couple of abbreviated ridges and posterior half with very dense pilosity, which makes petiole very broad; T1 apically without long bristles or hairs. Male flagellar segments shorter than in *geus*, about 1.4 times as long as broad . . . . . *geobius* sp. n. ♀♂

Basalys cornutus sp. n. Figs. 23-25

Holotype ♀: Sri Lanka, 6 miles N. of Monaragala, tamisage en forêt 13.II.1970 (Besuchet, Löbl) [MHN], Geneva.

Paratypes: Same data as holotype, ♂ [MHN]; Sri Lanka, Kandy distr., Ginigathena, along road in forest on mountain 22.IV.1979, ♀♂ (M. Söderlund) [HUGG], Lund.

♀. Length 0.73-0.84 mm. Colour light brown with sutures darker, legs and antennae yellow with clava dark brown, eyes black, ocelli hyaline with 2 dark spots between

anterior and posterior ocelli and wings hardly infumate. Head globose, from above (fig. 23) much wider than long (50:69) with protruding rather small eyes; bare part of temples subequal to length of eye and temples rather strongly converging; frons in front of anterior ocellus (figs. 23, 24) with a short horn and antennal sockets unusually short and wide; occiput moderately concave and ocelli rather large. In lateral view (fig. 24) head higher than long (56:65), vertex rather flat and below frontal horn frons falling almost vertically to small angularly set off sockets; eye (18:27) situated rather far ahead, malar space 4/5 of greatest width of eye and clypeus well defined. Palps 5-2. Head with

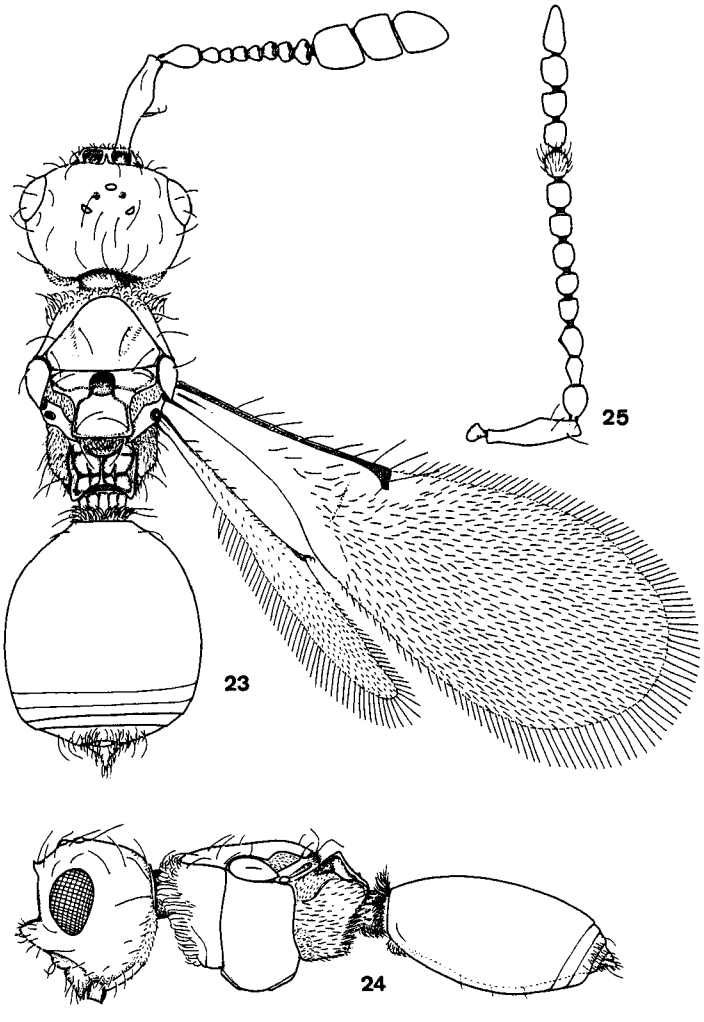

FIG. 23–25.

Basalys cornutus sp. n., ♀;
23: dorsal view of body; 24: body in lateral view; 25: male antenna.

very short, dense pilosity on upper genae and head with scattered long setae. Antenna (fig. 23) with A1 (41:11) distinctly dilated medially; A2 (14:9) attached rather low down ventrally on A1 due to a well developed dorsoapical rim on A1; A3 (7:6); A4 to A6 subequal (4:6); A7 to A8 subequal (4:7-8); A9 (5:9.5); A10 (17:18); A11 (15:18); A12 (19:17); A1 distinctly shorter than shortest distance between eyes (41:49); mesosoma (78:58) clearly narrower than head but comparatively broad, moderately arched; mesoscutum very broad (30:47), notauli missing but indicated as very shallow depressions, only 1 bristle in front of tegula and 1 pair of submedian bristles; lateral parts of pronotum broadly visible from above and much converging towards neck; anterolateral part of pronotum with a collar of pale pilosity, standing out laterally; scutellum (27:25) rather broad with a deep roundish fovea and lateral parts of shield with pigmented loops reaching fovea (fig. 23). Propodeum with broad, deeply concave hind margin separated from main part by a deep transverse furrow; median keel narrow, triangularly elevated (fig. 24) with a hyaline dorsal margin; lateral keels prominent and on each side of median keel a small ridge; metapleurae broadly visible from above; lateral parts of scutellum, anterodorsally and -ventrally on metapleurae with patches of dense, short hyaline pilosity. Fore wing (230:83) surpassing metasoma by almost 1/3 of its length; basalis not pigmented and thus overlooked if not searched for, bristles on veins not very long, about 9 in numbers and fringe only 1/4 of width of wing and veins to length of wing (98:230). Hind wing (150:17) comparatively narrow with fringe shorter than width (12:17). Petiole broader than long (12:18), distally with an collar of errect hairs. Metasoma (100:80) broadly oval, anteriorly without pilosity but with 1 or 2 bristles laterally; due to the pale colour, the borders between tergites impossible to see for sure; apical part rather hairy, blunt but with a rather narrow apical tergite.

♂. Length about 0.78 mm. Colour as in female. Head from above (48:70) as in female with a short horn on frons. Antenna (fig. 25) with A1 (38:10) dilated medially and apex as in female; A2 (13:10); A3 (10:7) narrow; A4 (12:9) hardly concave ventrally and here with an inconspicuous carina; A5 to A6 subequal (9:8); A7 to A11 subequal (10:9); A12 to A13 subequal (11-12:10); A14 (19:9). Mesosoma (81:52) and wings as in female. Petiole the same but metasoma slightly narrower (82:63) and apex blunt, less pointed.

All four specimens are very similar but the female paratype is smaller than the others, vertex is somewhat collapsed and the horn on frons virtually absent. However, a careful study of that area on frons reveals a delicate longitudinal elevation. Thus it is evident that the size and shape of this horn (as projecting parts usually are) is allometrically variable.

This species is described here as it is rather aberrant among the species of this group for which KIEFFER once (1913) errected the genus *Acidopria*. MASNER (1964*a*) synonymized this genus with *Basalys* Westw., which certainly is correct as there occurs many different combinations regarding the size, shape, number of projections and they are variably placed on head. Sometimes there is even a more or less well developed transverse carina on frons, usually with lateral horns or the horns are placed on vertex behind posterior ocelli as in *B. spinosiceps* (Dodd, 1920) **comb. n.** (from *Loxotropa*). Between these extremes (mainly tropical, but there are 4-5 species also in Sweden) there are all types of intermediate forms "ending up" in a typical *Basalys* (*Loxotropa* auct. nec Förster). One of the species described here with slightly concave frons i. e. *loebli* is such an intermediate form. It has no horns but laterally in front of the eyes, frons is "on its way to produce blunt knobs".

Thus, it is also obvious that we have to drop the recently described genus *Praeloxotropa* Szabó, 1979, which is nothing but the former genus *Acidopria*. In the same

paper SZABÓ described *P. hirta* (Thomson) (he has seen a specimen labelled "hirta" in coll. Thomson, Lund) but as Thomson never described this species, it should be a *nomen nudum* and must be rejected. The species now has to be named *hirta* Szabó as it was accompanied in his paper by a description. Thus we have the following new combinations: *Basalys carinifrons* (Szabó) and *B. hirta* (Szabó) **n. comb.** Further, in the same paper where he described these two species, he mentions under *carinifrons* that this species differs from *curiosiceps* sp. n. etc., which is a lapsus as he obviously changed the name *curiosiceps* later on to *hirta*, when he had seen that Thomson specimen.

In some respects, *cornutus* resembles the genus *Termitopria* Muesebeck, 1965 from S. Africa, which also has short horns or teeth on frons and there are also some other similarities between them. But on the other hand, there are other characters, which suggest that they belong to two quite different groups of genera. *Termitopria* is probably related to the *Trichopria* komplex of genera and *cornutus* belongs to the *Basalys* group.

Microgalesus Kieffer, 1912 is another genus, with horns on frons, which most probably also should be placed in the *Basalys* komplex. Some of its characters, especially the shape of the head, are so accentuated that it is motivated to keep it as a valid genus, although some depressed *Basalys*-species exhibit features along the same line of development.

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